**Grazioso Salvare Interactive Dashboard**

**Contents of this file**

* Introduction
* Requirements
* Installation
* Configuration
* Troubleshooting
* Maintainers

**Introduction**

This project was created by Cameron Lee for CS-340 Client Server / Development at Southern New Hampshire University. The goal of this project is to provide an interactive Jupyter Dashboard that can show a data table containing information regarding dogs in a database for a international rescue-animal training company named Grazioso Salvare. This data table contains filters that can filter which dogs in their database are viable for certain rescue situations. The dogs are chosen based on their breed, age, and preferred sex. The specialized rescue situations are provided below.

* **Water Rescue**

Chart

Description automatically generated

* **Chart, pie chart

  Description automatically generatedMountain or Wilderness Rescue**
* **Chart

  Description automatically generatedDisaster Relief**

Graphical user interface, application

Description automatically generated with medium confidenceThere’s also an option in the table to reset the filter

Below the data table you will notice a pie chart and a map. This is extra information to help pinpoint where the dogs are located, and the distribution of breed for the filtered information. Both features update in real time as filters are changed. The map contains a pinpoint for where a specific dog is located in the world and it’s name. Example provided below.

Map

Description automatically generated

**FAQ**

**Why was MongoDB used as the model component of the development?**

MongoDB is a simple yet effective database tool to allow one collection of information to hold and provide data easily. Its syntax is very similar to Python, which was used in the CRUD module for this project making a seamless development environment.

**How does the Dash framework work regarding the view and controller structure?**

The Dash framework was imported during the development of this project to provide a way to design and provide controls for the project. This provides a foundation for building and designing the information in a way that’s intuitive and easy to navigate.

**Requirements**

Jupyter Notebook - <https://jupyter.org/install>

MongoDB - <https://www.mongodb.com/docs/manual/installation/>

The Project Two Dashboard.zip – [github/ProjectTwoDashboard.zip](https://github.com/camlee622/CS340/blob/main/ProjectTwoDashboard.zip)

**Installation**

Download and install all requirements shown above. Upload the contents of the ProjectTwoDashboard.zip file into Jupyter and run in the notebook AFTER starting MongoDB in your command terminal.

**Roadblocks I had**

There were many challenges when developing this project. Jupyter is a fantastic program, however the UI of the dashboard was a little difficult to navigate with. I was performing this through a virtual environment on an operating system I’m not familiar with, providing some extra difficulties when developing this project. Organizing the syntax and providing proper closing parenthesis and brackets provided some challenges at times as well. Overall, I’m extremely happy with the final product with this project.